Title: A SUPRABASAL BREAST CELL WITH STEM CELL PROPERTIES

Attorney Name: John J. Gresens Phone No.: 612-371-5265

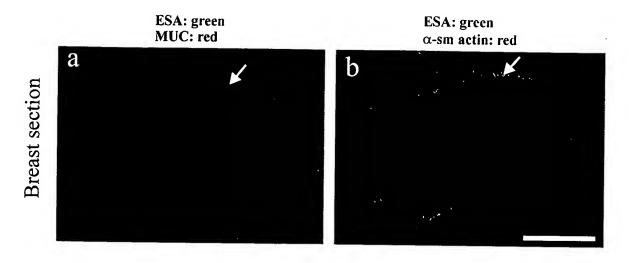
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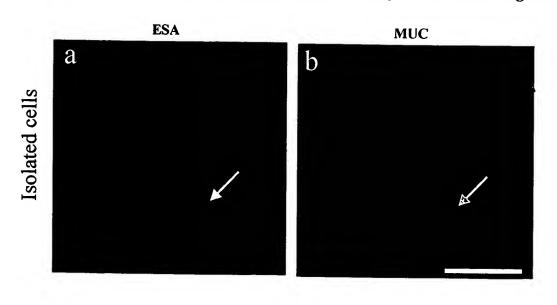
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# Identification of "suprabasal" luminal epithelial cells in the breast.

A. Suprabasal cells belong to the luminal epithelial lineage.



B. A subset of cells within the luminal epithelial lineage is sialomucin-negative.



BARR 100

Inventor: PETERSEN et al.

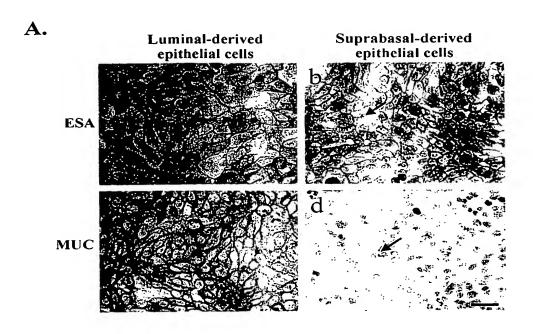
Docket No.: 05799.0154USWO
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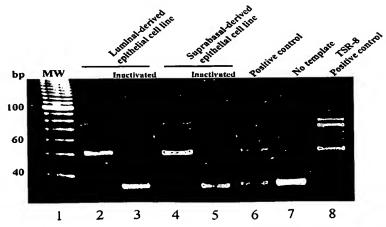
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Isolation, immortalization and characterization of luminal and suprabasal-derived epithelial cells.



B. Luminal-derived epithelial cell line Suprabasal-derived Negative control epithelial cell line HPV16-E6 HPV16-E7 **GAPDH** 

C.



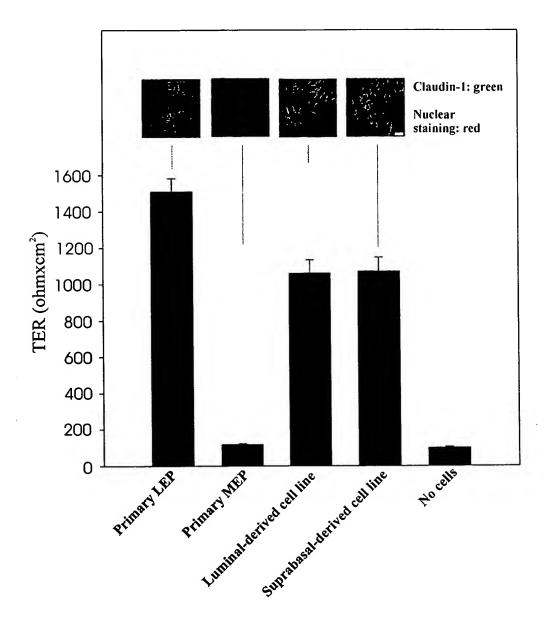
**BEST AVAILABLE COPY** Fig. 2

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**D.** Both the luminal- and suprabasal-derived cell lines belong to the luminal epithelial lineage.



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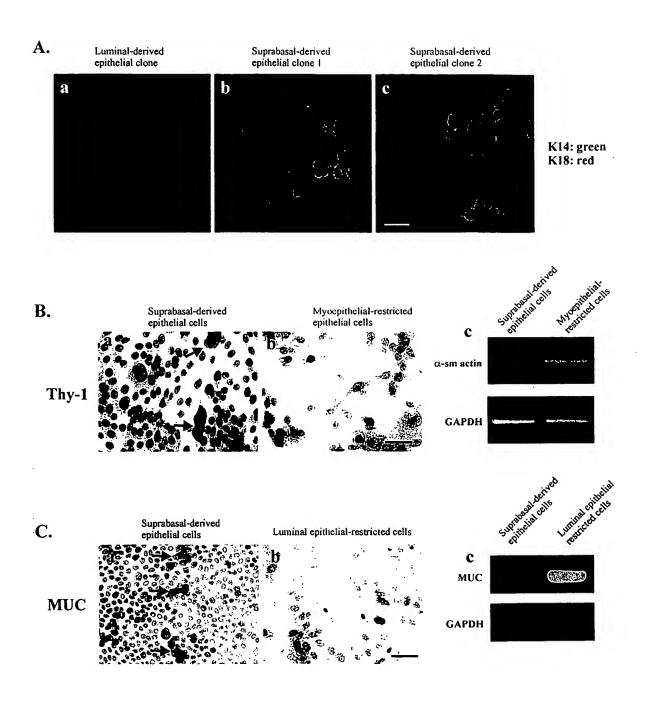
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#### Evidence for multipotency in the suprabasal-derived epithelial cell line



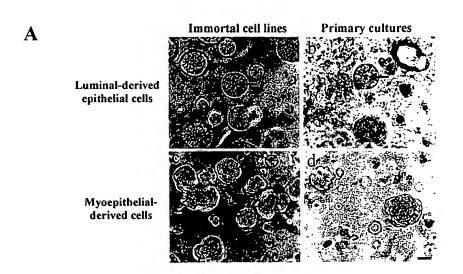
Title: A SUPRABASAL BREAST CELL WITH STEM CELL PROPERTIES

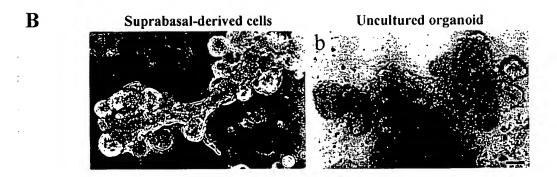
Attorney Name: John J. Gresens Phone No.: 612-371-5265

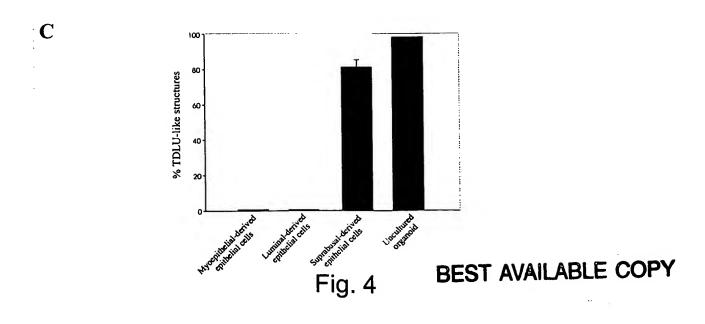
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5/9 Only suprabasal-derived epithelial cells give rise to terminal duct lobular units (TDLUs).







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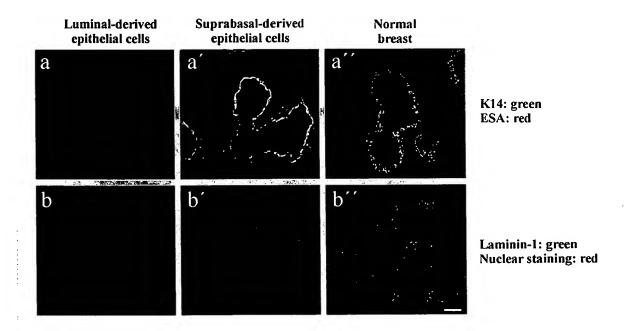
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D. Only suprabasal-derived epithelial colonies in a laminin-rich gel resemble TDLU in vivo.



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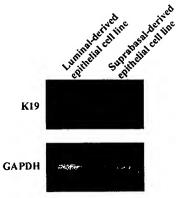
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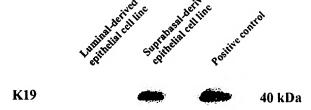
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The suprabasal-derived cells are keratin K19-positive similar to a subpopulation of cells in TDLU and neoplastic breast epithelial cells in vivo.

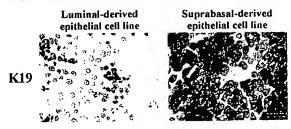
A. Luminal- and suprabasal-derived epithelial cells differ by expression of mRNA for keratin K19.



B. Luminal and suprabasal-derived epithelial cells differ by expression of protein for keratin K19.



C. Keratin K19 staining in cultures of luminal- and suprabasal-derived epithelial cells.



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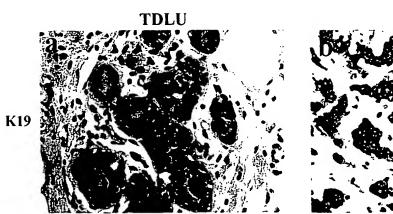
Attorney Name: John J. Gresens Phone No.: 612-371-5265

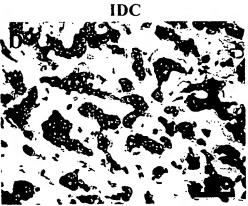
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# Keratin K19 staining in sections of normal breast tissue (TDLU) and infiltrating ductal carcinoma (IDC).





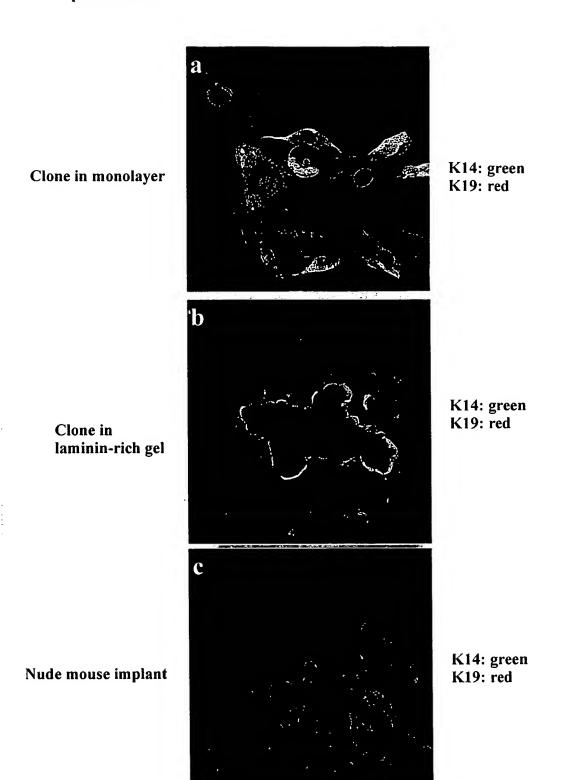
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Clonal segregation of keratin K19-positive and K14-positive cells in twoand three-dimensional culture, and mouse implants of suprabasal-derived epithelial cells.



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